

Naked Humpty Dumpty STEM Activity

Try out this fun nursery rhyme-inspired experiment and earn 15 minutes of time read.

What you need:

- Vinegar
- Glass jar(s) with lid
- Raw uncracked egg(s)
- Spoon

Note: It takes about two days for the full effect of this experiment to take place.

What you do:

1. Carefully place the egg in the glass jar, cover it with vinegar and screw the lid on to avoid accidental spills.
2. Bubbles will begin to form as the chemical reaction occurs. (The acetic acid reacts with the calcium carbonate in the eggshell and releases carbon

dioxide gas that you see as the bubbles).

3. After 12 to 24 hours, check to see if the shell has dissolved.
4. Pour the liquid out of the jar and carefully remove the egg with the spoon (or simply pour it into your hand; the membrane is delicate and may break! You may want to experiment with two or more eggs and jars in case an egg breaks).
5. Gently rub off the powdery eggshell.
6. Refill the jar with vinegar and put the egg in the vinegar for another 24 hours. After this time, the egg is ready for some grossness! It becomes very rubbery, and you may want to experiment with dropping the rubbery egg from different distances. Soak it in food-colored water. You can experiment and leave the egg(s) out for about a week.

What's happening? Chemical reactions!

The vinegar causes a chemical reaction to break down the calcium carbonate of the egg shell, eroding it down to the egg membrane.